

## 國立交通大學課程綱要

開課單位	多媒體工程研究所	授課教師	林奕成	授課學期	96 學年度 1 學期
課程名稱	人機互動			人數上限	N/A
英文名稱	Human Computer Interaction				
學分數	3	上課時數	3	先修課程	N/A
<p>課程目標：</p> <p>Human computer interaction (HCI) is an interdisciplinary field solving real problems in the design and use of technology. The goal of this field is to make computer-based systems easier to use and more effective for people and organizations.</p> <p>This course will first briefly introduce the fundamental principles of HCI, such as usability, prototyping. Then, it will introduce topics about advanced user-oriented interfaces. Students will learn the fundamental concepts of human computer interaction through lectures, readings, discussions and team work on an interaction design project. Students are also encouraged to combine this project with their projects in special topics or other courses.</p>					
<p>課程綱要：</p> <ol style="list-style-type: none"> <li>1. Fundamental concepts <ul style="list-style-type: none"> <li>● Usability</li> <li>● Conceptual model</li> <li>● User-centered design, prototyping and evaluation</li> </ul> </li> <li>2. Issues in 3D user interfaces <ul style="list-style-type: none"> <li>● Hardware and software techniques in 3D interfaces</li> <li>● Design and implementation of vision-based 3D UI</li> </ul> </li> <li>3. Applications and case studies <ul style="list-style-type: none"> <li>● Vision-based interaction</li> <li>● Suggestive graphical interfaces</li> <li>● Tangible interaction and virtual reality</li> <li>● Audio, speech and multi-model interfaces</li> </ul> </li> </ol>					
<p>參考書目：</p> <ul style="list-style-type: none"> <li>■ Lecture notes.</li> <li>■ Proceedings of UIST, SIGGRAPH, CHI, etc.</li> <li>■ J. Preece, Y. Rogers, and H. Sharp, Interaction Design beyond Human Computer Interaction, John Wiley &amp; Sons, 2002.</li> <li>■ D.A. Bowman, E. Kruijff, J.J. LaViola, I. Poupyrev, 3D User Interfaces: Theory and Practice, Addison Wesley Professional, 2005.</li> <li>■</li> </ul>					
<p>課程進行方式、課程要求及評分標準：</p> <ul style="list-style-type: none"> <li>■ Lectures &amp; Discussion</li> <li>■ Grading <ul style="list-style-type: none"> <li>□ Quiz</li> <li>□ Presentation</li> <li>□ Projects</li> </ul> </li> </ul>					